

What is claimed is:

1. A tube joint comprising:

5 a joint body which has a through-hole as a fluid passage formed in an axial direction and which has a first screw section formed at least at one end;

10 a nut member which connects a tube member to said joint body, said nut member being fitted to said one end of said joint body by a second screw section that is screwed with said first screw section;

15 a fastening mechanism which is provided at said one end of said joint body and which is pressed radially inwardly by an inner wall surface of said nut member for engaging with a diametrically-expanded outer circumferential surface of said tube member; and

20 a regulating element which is provided on an end surface of said nut member to be screwed on said joint body and which regulates a screwing amount of said nut member on said joint body.

25 2. The tube joint according to claim 1, wherein said fastening mechanism includes a plurality of collet sections which are elastically deformable toward an outer circumference of said tube member inserted into said joint body and which are segmented in a circumferential direction to surround said outer circumferential surface of said tube member, and fastening pawls which are formed on said collet

sections and which bite into said outer circumferential surface of said tube member.

3. The tube joint according to claim 2, wherein a pressing section is provided on said inner wall surface of said nut member, said pressing section comprises a tapered surface having gradually decreasing inner diameters from said second screw section, and said collet sections are pressed by said pressing section radially inwardly when said nut member is screwed.

4. The tube joint according to claim 1, wherein said regulating element has an annular projection which protrudes by a predetermined length from said end surface of said nut member toward said joint body, and said screwing amount of said nut member is regulated by abutment of said annular projection against an annular step of said joint body.

5. The tube joint according to claim 4, wherein said end surface of said nut member is formed with an annular recess for receiving said annular projection deformed when said nut member is further screwed toward said joint body from where said annular projection abuts against said annular step of said joint body.

6. The tube joint according to claim 4, wherein said annular projection is plastically deformable so that said

nut member is capable of being further screwed from where said annular projection abuts against said annular step of said joint body.

5 7. The tube joint according to claim 1, wherein said nut member is formed with a plug hole for inserting said tube member thereinto, and an edge section is provided on said inner wall surface of said nut member in the vicinity of an end of said plug hole, said edge section bites into
10 said outer circumferential surface of said tube member.

 8. The tube joint according to claim 7, wherein a tapered surface is formed at said end of said joint body, said tapered surface is diametrically expanded gradually in a
15 direction in which said tube member is inserted, and a projection is formed circumferentially on said tapered surface, corresponding to said edge section of said nut member.

20 9. The tube joint according to claim 2, wherein a projection is formed circumferentially corresponding to said fastening pawls formed on said collet sections, said projection is provided on an outer circumferential surface at an end of said joint body.

25 10. The tube joint according to claim 1, wherein each of said joint body and said nut member is formed of a resin

material.

11. The tube joint according to claim 1, wherein a cylindrical section is formed at said end of said joint body, a diametrically expanded section of said tube member is attached to said cylindrical section, a chamfered section is formed at an end of cylindrical section, said chamfered section faces a through-hole.

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